What is claimed is:

1. Contact pressure system, especially for continuously variable transmission (10), with at least one torque sensor system (48), which, on the input side, can be loaded with a torque and which, on the opposite side, generates a (contact pressure) force that depends on the torque applied on the input side, where the contact pressure system (12) has at least one transmission unit (70, 110) that transmits the torque and/or the force.

2. Contact pressure system, in particular for continuously variable transmission (10), with at least one torque sensor system (48), which, on the input side, can be loaded with a torque and, on the output side generates a [contact pressure] force, that depends on the torque applied on the input side, where at least one set of disks (340, 342) is associated with the contact pressure system (12), and where the torque, which is applied on the input side on the torque sensor system (48), differs from the torque that is transmitted between the set of disks (340, 342) and another set of disks (340, 342).

3. Contact pressure system, in particular, for continuously variable transmission (10), with at least one torque sensor system (48), which, on the input side, can be stressed with a torque, and which, on the output side, generates a [contact pressure] force that depends on the torque applied on the input side, where that contact pressure system (12) has ramps (66, 68, 140, 142) that extent at an

angle to the circumferential direction, which ramps at least help bring about the fact that the (contact pressure) force depends on the torque, where provision is made for differing directions of rotation of differing ramps (66, 68,140, 142) and where a freewheel (150, 152, 170, 210, 240) is provided for differing directions of rotation.

4. Contact pressure system, in particular, for continuously variable transmission (10), with at least one torque sensor system (48), which, on the input side, can be loaded with a torque and, which, on the output side, generates a [contact pressure] force, that depends on the torque applied on the input side, as well as with at least one double free wheel system (170, 210, 240), where that double freewheel system (170, 210, 240) cooperates with the torque sensor (48).

5. Contact pressure system, in particular, for continuously variable transmission (10), with at least one torque sensor system (48) that, on the input side, can be loaded with a torque, and that, on the output side, generates a (contact pressure) force that depends on the torque applied on the input side and on the direction of rotation, where a switchover device is provided which switches between predetermined scatter characteristics that depend on the direction of rotation, when the direction of rotation is changed.

6. Contact pressure system, in particular, for continuously variable transmission (10), with at least one torque sensor system (48), which, on the input side, can be loaded with a torque, and which, on the output side, generates a

(contact pressure) force, that depends on the torque applied on the input side and on the direction of rotation, where a device is provided which makes sure that at least one of the particular ramps (66, 68, 140, 142) of the torque sensor (48) is applied, in the direction of force transmission, upon at least one or on the particular adjoining force transmission components (62, 62', 64, 64') and which ensures that, as a function of the direction of loading, the particular ramp (66, 68, 140, 142), intended for that direction of loading, is arranged in the flow of force.

7. Contact pressure system, in particular, for continuously variable transmission (10), with at least one torque sensor system (48), that, on the input side can be loaded with a torque, and that, on the output side, generates a contact pressure) force that depends on the torque applied on the input side and on the direction of rotation, where the torque sensor system (48) has differing ramps (66, 68, 140, 142), specifically, a first ramp (66, 68, 140, 142), via which a torque is to transmitted, when the torque sensor system (48) is loaded in a first direction and at least a second ramp (66, 68, 140, 142), via which a torque is to be transmitted, when the torque sensor system (48) is loaded in a second direction, opposite to the first one, whereby a freewheel unit (150, 152, 170, 210, 240) is provided with at least one first freewheel (150, 170, 210, 240), associated with the first direction of rotation, as well as with at least one second freewheel (152, 170, 210, 240), associated with the second direction of rotation, and where one can make sure that one can prevent the jamming of those freewheels (150, 152, 210, 240) when the torque sensor (48) changes over.

8. Contact pressure system, in particular, for continuously variable transmission (10), with at least one torque sensor system (48) which, on the input side, can be loaded with a torque, and which, on the output side, generates a (contact pressure) force that depends on the torque applied on the input side, and with at least one spring system (310), whereby that spring system (310) cooperates with the torque sensor (48).

9. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the transmission of the transmission unit (70, 110) is adjustable.

10. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a gear unit (70, 110) is provided on the input side of the torque sensor (48).

11. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that differing torques are applied to the gear unit (70, 110), where the larger one of those torques or the largest of those torques is transmitted between the gear unit (70, 110) and the torque sensor (48).

12. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a planetary gear (70, 110) is provided on the input

side of the torque sensor (48).

13. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the sun gear (76, 112) of the planetary gear (70, 110) is coupled in a nonrotating manner with a shaft (86, 148, 318) that is coupled to an internal combustion engine.

14. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the carrier (78) of the planetary gear (70, 110) is coupled in a nontortional manner with an input member (54, 58) of the torque sensor (48).

15. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that, on the input side of a torque sensor (48), that is associated with a predetermined set of disks (340, 342) of a endless loop means gear, the input moment of the torque of the torque sensor (48) is set high, whereby that input moment is greater than the torque that is transmitted between the associated set of disks (340, 342) and another set of disks (340, 342).

16. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the gear unit (70, 110) has step planets to enlarge the torque that is introduced on the input side into the torque sensor (48).

17. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the gear unit (70, 110) has a planetary gear (70, 110), where an input torque can be introduced into the sun gear (76, 112) of that planetary gear (70, 110), where the ridge moment, on the input side, can be introduced into the torque sensor (48), and where the differential moment between the input torque and that ridge moment is returned, as blind moment, between the output side of the torque sensor (48) and the ring gear (72, 116) of the planetary gear (70, 110).

18. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the gear unit (70, 110) has noncircular gears.

19. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a portion of the contact pressure force – which depends on the transmission of the continuously variable transmission (10) – is brought about by the selection and/or shaping of gear unit (70, 110).

20. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the torque – that is transmitted from gear unit (70, 110) in the direction of the set of disks (340, 342) of the continuously variable transmission (10) – depends on the transmission that is given between the sets of disks (340, 342) of the continuously variable transmission (10).

21. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least one gearwheel (74, 76), of the gear unit (70, 110), has the shape of an ellipse.

22. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the gear unit (70, 110) is a planetary gear (70, 110), where the sun gear (76, 112) and the planetary wheels (74, 114), are ellipsoidal.

23. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the gear unit (70, 110) is made as a planetary gear (70, 110), where the torque – transmitted from that gear unit (70, 110) in the direction of the sets of gears (340, 342) of the continuously variable transmission (10) – is transmitted from the carrier (78) of that planetary gear (70, 110).

24. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the torque sensor (48) has a system of ramps (50, 52) with linear ramps (66, 68, 140, 142), which extend particularly in the circumferential direction of the torque sensor (48).

25. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the torque sensor (48) has a ramp system (50, 52), with nonlinear ramps (66, 68, 140, 142), that extend especially in the

circumferential direction of the torque sensor (48).

26. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that there is provided at least one torque sensor (48) with differing ramps (66, 68, 140, 142), as well as a device which determines or controls via which of those ramps (66, 68, 140, 142) a torque can be transmitted.

27. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at the torque sensor (48) has ramps (66, 68, 140, 142), where at least one ramp (66, 68, 140, 142) is provided for each direction of rotation, and where those ramps (66, 68, 140, 142) associated with the various directions of rotation, are possibly uncoupled.

28. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the torque sensor (48) has ramps (66, 68, 140, 142), against which is supported at least one component (62, 62' 64, 64') of the torque sensor (48), where that component (62, 62', 64, 64') is placed against at least one of the ramps (66, 68, 140, 142) in an active or passive manner.

29. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a first device of the torque sensor (48) is provided which is connected into the flow of force, when a torque works on the torque sensor (48) in a first direction, and that there is also provided a second device of the torque

sensor (48) that is switched into the flow of force, when a torque acts on the torque sensor (48) in a second direction, which is opposite of the first direction.

30. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first device has at least one first ramp (66, 68, 140, 142).

31. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the second device has at least a second ramp (66, 68, 140, 142).

32. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first ramp (66, 68, 140, 142) can be swung with respect to the second ramp (66, 68, 140, 142).

33. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least one first ramp (66, 68, 140, 142) is coupled with at least a second ramp (66, 68, 140, 142) via at least one spring element (144, 320).

34. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first ramp (66, 68, 140, 142) and/or the second ramp (66, 68, 140, 142) extends into the circumferential direction of the

torque sensor (48).

35. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first ramp (66, 68, 140, 142) and/or the second ramp (66, 68, 140, 142) extends in the circumferential direction and in the radial direction of the torque sensor (48).

36. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the damper unit (322, 322') is provided between the first ramp (66, 68, 140, 142) and the second ramp (66, 68, 140, 142).

37. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first unit has a first freewheel (150, 170, 210, 24) and that the second unit has second freewheel (152, 170, 210, 240), where those freewheels (150, 152, 170, 210, 240) are coupled with each other.

38. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that, during the switch over from the first freewheel (152, 170, 210, 240) into the second freewheel (152, 170, 210, 240) and, conversely, one runs through a position in which one can make sure that both freewheels (150, 152, 170, 210, 240) are opened.

39. Contact pressure system, in particular, in accordance with one of the

above claims, characterized in that the first (150, 170, 210, 240) and the second freewheel (152, 170, 210, 240) in each case has at least one clamping body (184, 188, 244, 248), such as a ball or a roller, and that a common retainer (190, 250) is provided for clamping bodies (184, 188, 244, 248) of the first (150, 170, 210, 240) and the second freewheel (152, 170, 210, 240).

40. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the (150, 170, 210, 240) and the second freewheel (152, 170, 210, 240) has at least one clamping body (184, 188, 244, 248), such as a ball or a roller or a swing element, where those clamping bodies (184, 188, 244, 248) in each case cooperate with a profile track (174, 176, 216, 218) and where at least one of those profile tracks (174, 176, 216, 218) are arranged radially outside the clamping bodies (184, 188, 244, 248) that cooperate with that track (174, 176, 216, 218).

41. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first (150, 170m 210, 240) and the second freewheel (152, 170, 210, 240) in each case has at least one clamping body (184, 188, 244, 248), such as a ball or a roller or swing element, whereby those clamping bodies (184, 188, 244, 248) in each case cooperate with a profile track (174, 176, 216, 218) and where at least one of those profile tracks (174, 176, 216, 218) is arranged radially inside the clamping bodies (184, 188, 244, 248) that cooperate with that track (174, 176, 216, 218).

42. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first (150, 170, 210, 240) and the second freewheel (152, 170, 210, 240) has at least one clamping body (184, 188, 244, 248) and that at least one clamping body (184, 188, 244, 248) is associated both with the first (150, 170, 210, 240) and also with the second freewheel (152, 170, 210, 240).

43. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the first (150, 170, 210, 240) and the second freewheel (152, 170, 210, 240) has at least one clamping body (184, 188, 244, 248), that there is provided, for clamping bodies (184, 188, 244, 248) of the first freewheel (150, 170, 210, 240), a first unprofiled track (172, 212), that there is provided, for the clamping bodies (184, 188, 244, 248) of the second freewheel (152, 170, 210, 240), a second unprofiled track (172, 212), and that the first (172, 212) and the second unprofiled track (172, 212) are connected with each other in a nonrotating manner.

44. Contact pressure system, in particular, in accordance with one of the above claims, characterized by a retaining device which holds predetermined clamping bodies (184, 188, 244, 248) possibly at an spacing with respect to a first running track (172, 174, 176, 212, 216, 218, 258, 260, 262) and in contact with a second running track (172, 174, 176, 212, 216, 218, 258, 260, 262), where those running tracks (172, 174, 176, 212, 216, 218, 258, 260, 262) and those clamping bodies (184, 188, 244, 248) are associated with the same freewheel (150, 152, 170,

210, 240).

45. Contact pressure system, in particular, in accordance with one of the above claims, characterized by a catch device (280), which works between at least one clamping body (184, 188, 244, 248) and at least one track (172, 174, 176, 212, 216, 218,258, 260, 262) so that, in case of a movement of that track (172, 174, 176, 212, 216, 218, 258, 260, 262), a force will act on the clamping body (184, 188, 244, 248) in the circumferential direction, specifically, when the freewheels (150, 152, 170, 210, 240) are in an opened position.

46. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the catch device (280) is a friction device (280).

47. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the clamping bodies (184, 188, 244, 248), in case of a force and/or torque transmission via the freewheel (150, 152, 170, 210, 240) are clamped between two tracks (172, 174, 176, 212, 216, 218, 258, 260, 262), where in particular it is provided that the clamping body (184, 188, 248, 248) is arranged in a radial direction between those tracks (172, 174, 176, 212, 216, 218, 258, 260, 262).

48. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that clamping bodies (184, 188, 244, 248), that are associated with differing freewheels (150, 152, 170, 210, 240), are spaced away in

an axial direction.

49. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that clamping bodies (184, 188, 244, 248) – which are associated with differing freewheels (150, 152, 170, 210, 240) – are spaced away in the radial direction.

50. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that clamping bodies (184, 188, 244, 248), which are associated with different freewheels (150, 152, 170, 210, 240), are arranged in series.

51. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least one track (172, 174, 176, 212, 216, 218, 258, 260, 262) of a freewheel (150, 152, 170, 210, 240) is coupled with a component (54, 58) of the torque sensor (48).

52. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least one track (172, 174, 176, 176, 212, 216, 218, 258, 260, 262) of a freewheel (150, 152, 170, 210, 240) is coupled with a component (14) of a set of disks (340, 342).

53. Contact pressure system, in particular, in accordance with one of the

above claims, characterized in that at least two tracks (174, 176, 216, 218, 258, 262) – which are associated with different freewheels (150, 152, 170, 210, 240) – are arranged so that they can be moved with relation to each other.

54. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least two tracks (174, 176, 216, 218, 258, 262)– which are associated with different freewheels (150, 152, 170, 210, 240) – are arranged so that they can be moved with respect to each other and that a track (172, 212), which is associated with a first freewheel (150, 170, 210, 240), is arranged in a fixed manner with respect to a track (172, 212), that is associated with a second freewheel (152, 170, 210, 240).

55. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that several clamping bodies (184, 188, 244, 248) touch each other mutually and possibly stress [load] each other and, in particular, in the circumferential direction of freewheel (150, 152, 170, 210, 240).

56. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least a first clamping body (184, 188, 244, 248) is associated with at least one first running track (172, 174, 176, 212, 216, 218, 258, 260, 262), whereby a torque is transmitted via that first clamping body (184, 188, 244, 248) and that first running track (172, 174, 176, 212, 216, 218, 258, 260, 262), if a torque sensor (48) is loaded in a first direction of rotation;

at least a second clamping body (184, 188, 244, 248) is associated with at least a second running track (172, 174, 176, 212, 216, 218, 258, 260, 262), whereby a drug is transmitted via that second clamping body (184, 188, 244, 248) and that second running track (172, 174, 176, 212, 216, 218, 258, 260, 262), when the torque sensor (48) is loaded in a second direction of rotation;

the first clamping body (184, 188, 244, 248), with relation to the second clamping body (184, 188, 244, 248), is arranged at a predetermined phase angle and is possibly retained;

the first running track (172, 174, 176, 212, 216, 218, 258, 260, 262) is arranged at a predetermined phase angle with relation to the second running track (172, 174, 176, 212, 216, 218, 258, 260, 262); and

the phase angle between the clamping bodies (184, 188, 244, 248) is smaller than the phase angle between the running tracks (172, 174, 176, 212, 216, 218, 258, 260, 262).

57. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the spring system (310) make sure that the particular ramps (66, 68, 140, 142) of the torque sensor (48) rests, in the direction of force transmission, upon at least one force transmission component (62, 62' 64, 64'),

that adjoins the particular ramp (66, 68, 140, 142), and that spring system (62, 62', 64, 64') make sure that, as a function of the direction of loading, the particular ramp (66, 68, 140, 142), intended for that direction of loading, is arranged in the flow of force.

58. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that, by means of spring system (310), one can determine or one can control which ramp (66, 68, 140, 142) is to be switched into the flow of force.

59. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least one ramp (66, 68, 140, 142) of the torque sensor (48) is coupled with at least one spring (312, 314) of the spring system (310).

60. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that at least one ramp (66, 68, 140, 142) of the torque sensor (48) is coupled via at least one spring (312, 314) of spring system (310) with a component (316) that can be loaded by an internal combustion engine.

61. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that – via at least one spring (312, 314) of spring system (310) – torques are transmitted between a ramp (66, 68, 140, 142) of the torque sensor (48) and a component (316), which [spring system] can be loaded by

combustion engine, whereby that strength (312, 314) in particular, is arranged on the input side of the torque sensor (48).

62. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that – via at least one first spring (312) of the spring system (310) – torques are transmitted between a first ramp (66, 68, 140, 142) of the torque sensor (48) and a component (316), which [spring system] can be loaded by combustion engine, and that – via at least a second spring (314) of spring system (310) – torques are transmitted between a second ramp (66, 68, 140, 142) of the torque sensor (48) and a component (316), which [spring system] can be loaded by an internal combustion engine, whereby those springs (312, 314) in particular, are arranged on the input side of the torque sensor (48).

63. Contact pressure system, ~~in~~ particular, in accordance with one of the above claims, characterized in that the spring (312, 314) is increasingly released with increasing running radius of a endless loop means agent (18) on the set of disks (340, 342) that is associated with the particular spring.

64. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the spring (312, 314) was prestressed in case of the maximum running radius of a endless loop means (18) on the set of disks (340, 342) associated with that particular spring (312, 314).

65. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the contact pressure system (12) cooperates with a continuously variable transmission (10), which has a set of disks (340, 342) on the drive side, as well as a set of disks (340, 342) on the power takeoff side.

66. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a contact pressure system (12) with torque sensor (48) is arranged on the drive-side disk set (340, 342).

67. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a contact pressure system (12) with torque sensor (48) is arranged on the set of disks (340, 342) on the power takeoff side.

68. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a spring system (310), in accordance with one of the above claims, is arranged on the drive-side torque sensor (48).

69. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that a spring system (310), in accordance with one of the above claims, is arranged on the torque sensor (48) on the power takeoff side.

70. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that – during direction change or load change the

torque, applied to the torque sensor (48) or to the continuously variable transmission (10) – a spring force causes the ramp (66, 68, 140, 142) will adjoin [rest against].

71. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the spring system (310) acts as vibration damper.

72. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the contact pressure force loads at least one disk, in particular, a conical disk (14, 16) of a set of disks (340, 342), whereby that set of disks (340, 342) has two disks (14, 16) that are arranged so that they can moved with relation to each other.

73. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that that contact pressure system (12) loads differing disks (14, 16).

74. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that that contact pressure system (12) and/or the torque sensor (48) are shaped mechanically.

75. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the contact pressure force is produced as a function of the running radius of the endless loop means (18) upon a particular set of

disks (340, 342).

76. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the torque sensor (48) has at least one ramp (66, 68, 140, 142), as well at least one force transmission means (62, 62' 64, 64'), such as a ball, where that force transmission means (62, 62' 64, 64') and that ramp (66, 68, 140, 142) are arranged so that they can be moved with relation to each other and where the relative position between the force transmission means (62, 62' 64, 64') and the ramp (66, 68, 140, 142) depends on the input-side torque and where differing relative positions between the force transmission means (62, 62' 64, 64' ) and the ramp (66, 68, 140, 142) bring about differing contact pressure forces.

77. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the torque sensor (48) has at least one ramp (66, 68, 140, 142), where differing positions of that ramp (66, 68, 140, 142) are associated with differing running radii of a endless loop means (18) on a set of disks (340, 342), associated with that ramp (66, 68, 140, 142), of a continuously variable transmission (10) are assigned and where the gradient of that ramp (66, 68, 140, 142) increases with increasing running radius.

78. Contact pressure system, in particular, in accordance with one of the above claims, characterized in that the produced contact pressure force depends on the particular gradient of the ramp (66, 68, 140, 142).

79 Contact pressure system, in particular, in accordance with one of the above claims, characterized in that differing components (54, 54' 56, 56' 58, 58', 60, 60' 66, 68) of the torque sensor (48) are rotated with relation to each other due to the loading by the applied torque and that the produced contact pressure force depends on the angle of rotation of those components (54, 54', 56, 56', 58, 58', 60, 60', 66, 68).

80. Contact pressure system, in particular, in accordance with at least two claims of the above claims.

81. Continuously variable transmission with a contact pressure system (12) in accordance with one of the above claims.

82. Method for operating a contact pressure system (12) in accordance with one of claims 1 to 80 and/or to operate a continuously variable transmission (10) in accordance with claim 81.